



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/623,517	07/22/2003	Takayuki Ishiguro	240597US90	9991

22850 7590 07/27/2006

C. IRVIN MCCLELLAND  
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.  
1940 DUKE STREET  
ALEXANDRIA, VA 22314

EXAMINER

NGUYEN, TU X

ART UNIT PAPER NUMBER

2618

DATE MAILED: 07/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/623,517

Applicant(s)

ISHIGURO ET AL.

Examiner

Tu X. Nguyen

Art Unit

2618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 10-17 and 21-26 is/are rejected.
- 7) ☒ Claim(s) 7-9 and 18-20 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

2. Claims 1-4, 6, 11, 13, 17, 22, 24, 26, are rejected under 35 U.S.C. 102(e) as being anticipate by Subrahmanya (US Patent 2003/0045318).

Regarding claim 1, Subrahmanya discloses a method of deciding a transmit power level carried out by a wireless terminal in a mobile communications system comprising the steps of: deciding a multiplex number of uplink control signals (see par.0028); and deciding a transmit power level according to the decided multiplex number of uplink control signals (see par.0029).

Regarding claim 2, Subrahmanya discloses a method of deciding a transmit power level carried out by a wireless terminal in a mobile communications system comprising the steps of: estimating a quality of an uplink control signal (see par.006); and deciding a transmit power level according to the estimated quality of the uplink control signal (see par.029).

Regarding claim 3, Subrahmanya discloses a method of deciding a transmit power level carried out by a base station in a mobile communications system comprising the steps of: deciding a multiplex number of uplink control signals; deciding a transmit power level according to the decided multiplex number of uplink control signals; and sending the decided transmit power level as an indication value to a wireless terminal (see par.027).

Regarding claims 4, 17 and 22, Subrahmanya discloses a method of deciding a transmit power level carried out by a base station in a mobile communications system comprising the steps of: detecting a quality of an uplink control signal; deciding a transmit power level according to the detected quality of the uplink control signal; and transmitting to a wireless terminal the decided transmit power level as an indication value (see par.027).

Regarding claims 6 and 11, Subrahmanya discloses a wireless terminal comprising: a multiplex number deciding means for deciding a multiplex number of uplink control signals; a transmit power level deciding means for deciding a transmit power level of the uplink control signals according to the multiplex number of uplink control signals decided by the multiplex number deciding means; and a transmit power control means for controlling a transmit power level of the uplink control signals according to the decided transmit power level by the transmit power level deciding means (see par.006 and par.0029).

Regarding claim 13, Subrahmanya discloses the signal quality estimation means estimates the quality of the uplink control signal according to the downlink data signal from the base station (see par.006).

Regarding claim 24, Subrahmanya discloses the signal quality deciding means decides the quality of the uplink control signal according a bit error rate (see par.006) or a signal-to-noise ratio of at least one of a portion of informing the correct receipt of the downlink data signal and a blank portion thereof.

3. Claim 26 is rejected under 35 U.S.C. 102(e) as being anticipated by Park et al. (US Pub. 2004/0157635).

Art Unit: 2618

Regarding claim 26, Park et al. disclose a mobile communications system comprising a plurality of wireless terminals and a base station:

wherein the plurality of wireless terminals respectively are configured to estimate a quality of uplink control signal and to inform degradation of the quality of the uplink control signals to the base station in a case where one of the respective wireless terminals estimate the degradation of the quality of the uplink control signals (see par.0050, 0055); and the base station is configured to decide to increase a transmit power level of the uplink control signals from each of the wireless terminals when the base station received from one of the wireless terminals an information that the quality of the uplink control signals for informing an incorrect receipt of the downlink data signals is degraded and to decide to decrease the transmit power level of the uplink control signals from each of the wireless terminals when the base station received from one of the wireless terminals an information that the quality of the uplink control signals for informing a correct receipt of the downlink data signals is degraded, and to send an indication value of the transmit power level to all of the plurality of wireless terminals (see par.064).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2618

5. Claims 5, 10, 12, 14-16, 21, 23 and 25, are rejected under 35 U.S.C. 103(a) as being obvious over Subrahmanya (US Patent 2003/0045318) in view of Park et al. (US Pub. 2004/0157635).

Regarding claims 5, 12, 14-15 and 23, Subrahmanya discloses a step that the plurality of wireless terminals estimate a quality of an uplink control signal, respectively (see par.006);

Subrahmanya fails to disclose a step that the plurality of wireless terminals inform a degradation of the uplink control signal to the base station when they estimated the degradation thereof, respectively.

Park et al. disclose a step that the plurality of wireless terminals inform a degradation of the uplink control signal to the base station when they estimated the degradation thereof, respectively (see par.0064).

Subrahmanya and Park et al. are both disclose a method of power control in CDMA system and the base station adjusts the power transmission based on measuring reception signal quality from the wireless terminals while Park et al. adjusts the power transmission based on report from the wireless terminals, thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Subrahmanya with the above teaching of Park et al. in order to provide the base station adjusts its transmission power on the traffic channels separately because of difference in characteristics between the traffic channels (as suggested by Park, see par.016).

The modified Subrahmanya disclose a step that the base station decides to increase the transmit power level of the uplink control signal from one of the plurality of wireless terminals when the base station received from one of the plurality of wireless terminals an

Art Unit: 2618

information that the quality of the uplink control signal for informing an incorrect receipt of a downlink data signal is degraded, whereas the base station decides to decrease the transmit power level of the uplink control signal from one of the plurality of wireless terminals when the base station received from one of the plurality of wireless terminals an information that the quality of the uplink control signal for informing a correct receipt of the downlink data signal is degraded; and a step that the base station sends an indication value of the decided transmit power level of the uplink control signal to all of the plurality of wireless terminals (see Park, par.064).

Regarding claims 10, 16, 21 and 25, Subrahmanya fails to disclose the transmit power level of the uplink control signal is a transmit power level of an uplink control signal for informing an incorrect receipt of a downlink data signal from a base station.

Park discloses the transmit power level of the uplink control signal is a transmit power level of an uplink control signal for informing an incorrect receipt of a downlink data signal from a base station (see par.064).

Subrahmanya and Park et al. are both disclose a method of power control in CDMA system and the base station adjusts the power transmission based on measuring reception signal quality from the wireless terminals while Park et al. adjusts the power transmission based on report from the wireless terminals, thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Subrahmanya with the above teaching of Park et al. in order to provide the base station adjusts its transmission power on the traffic channels separately because of difference in characteristics between the traffic channels (as suggested by Park, see par.016).

***Allowable Subject Matter***

6. Claims 7-9 and 18-20, objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter:

Regarding dependent claims 7 and 18, the prior arts fail to teach "the transmit power level deciding means decides an increment in the transmit power level when the multiplex number of uplink control signals is large, whereas the transmit power level deciding means decides a decrement in the transmit power level when the multiplex number of uplink control signals is small", as cited in the claims.

Regarding dependent claims 8 and 19, the prior arts fail to teach "the multiplex number deciding means decides the multiplex number of uplink control signals according to a multiplex number of downlink control signals corresponding thereto", as cited in the claims.

Regarding dependent claims 9 and 20, the prior arts fail to teach "the multiplex number deciding means measures the multiplex number of downlink control signals corresponding to the uplink control signals and decides the multiplex number of uplink control signals according to the measured multiplex number of downlink control signals", as cited in the claims.

**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tu Nguyen whose telephone number is 571-272-7883. The examiner can normally be reached on Monday through Friday from 6:30AM-2:30PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban, can be reached at (571) 272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Art Unit: 2618

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TN

July 12, 2006



EDWARD F. URBAN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600